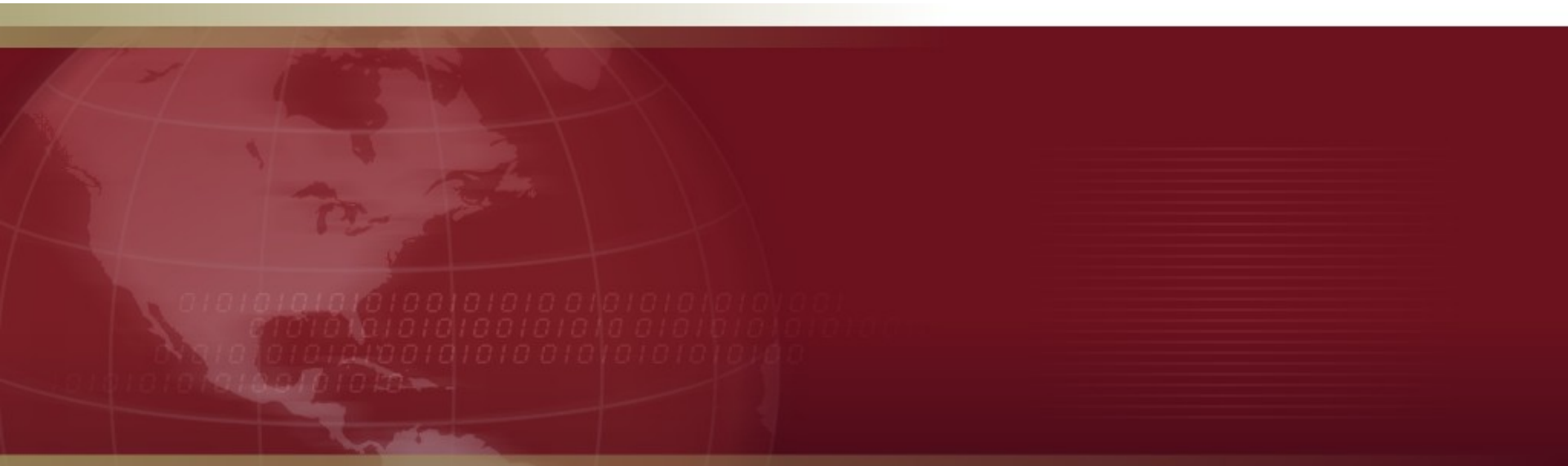




# The Safe Use of Taps



***TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.***



# What are RPTs?



- A Re-locatable Power Tap (RTP) or power strip, is used to provide multiple receptacles from a single facility outlet. It has a 1.5 to 25 ft integrated power cord, and a housing containing several receptacles (typically 3 to 8).
- In addition, it may contain:
  - Power switch
  - Over current protection (a resettable breaker)
  - Surge suppression or EMI filter
- Very common in offices, especially with computers, small kitchen areas, and laboratory areas.



# Rules for Power Taps



- The power strip must be NRTL listed (e.g., UL, CSA, etc.)
- The power strip must be plugged into a facility receptacle (including those that are permanently wired in a laboratory or office raceway.
- The power strip must NOT be permanently mounted. No tools can be used to mount the power strip, and any screws used to hang the power strip can not be accessible for tightening.
- Do NOT plug a power strip into another power strip, into an extension cord, or into a UPS.



# More Rules for Power Taps



- Never exceed the maximum rated load (1800 W total for a 120 V, 15-A power strip). Add them up!
- Avoid any single load at 1000 W or more
- If Listed for “Light Household Duty Only” do not use in the office.



# Allowed Electrical Loads



- Most power strips are rated for 15 Amps. But, you should not approach this rating with one load (one plug). Since most appliances are rated in power (Watts), then **the 15 A power strip is rated at 1800 Watts total**, for a 120 V power strip.
- You can also add currents using  $P = V \times I$ , where  $P$  is power in Watts,  $V$  is 120 Volts, and  $I$  is current in Amps. Then,  $I = P/V$  for each load. Keep  $I$  total  $< 15$  Amps.



# Never plug into a power tap



- Window air conditioner 1200 – 3000 W
- Space heater 1000 – 1800 W
- Microwave oven 1100 – 2000 W
- Large coffee maker (10 cup) 1200 W
- Toaster oven, hot plate, etc. 1200 – 1500 W
- Laser printer 600 – 1500 W
- Any motor 1/3 hp or greater > 750 W running,  
> 1500 W startup
- Large refrigerator 600 – 800 W run, >1500  
W startup



# Allowed in a power tap (add to get total)



- small coffee pot (4 cup) 650 W
- computer with monitor 200 – 500 W
- inkjet or dot matrix printer 100 – 200 W
- small refrigerator 300 W
- clock radio, small radios, VCR 50 – 100 W
- small portable fan 200 – 300 W
- slow cooker (for that chili) 200 W
- charger (cell, PDA, etc.) < 5 W
- laptop power supply 60 – 80 W



# Never “Daisy Chain” Power Taps

